Tips for buying energy-efficient office equipment

MORE THAN JUST A LABEL

ENERGUIDE

PLUS QU'UNE ÉTIQUETTE

Tips for Buying Energy-Efficient Office Equipment

A decade ago, office equipment accounted for only about one per cent of the total energy consumed in a typical office or commercial building. Today, it accounts for anywhere from 10 to 20 per cent of the energy consumed. Every piece of equipment used in an office has an impact on the environment through its manufacture, use and eventual disposal. Attention to detail can help you buy long-lasting, energy-efficient equipment, whether it's for the office or the home.

Keep these tips in mind when making your purchasing decision.

Computers

- Laptop computers use 10 per cent or less of the electricity consumed by typical desktop computers. Among the developments that have helped achieve this energy efficiency are advanced power management, 3.3-volt architecture and low-energy, 2 1/4" and smaller hard disk drives.
- 3.3-volt architecture is finding its way into desktop computers. A 3.3-volt desktop computer may achieve energy savings of 50 per cent compared to regular 5.0-volt desktops.
- Don't purchase a system that greatly exceeds your needs, keeping in mind that:
  - 5 1/4" drives require as much as double the energy of a 3 1/2" drive and even more compared to the 2 1/4" drive;
  - the larger the memory (RAM), the greater the energy consumption;
  - the addition of extra "boards" or components will likely increase the system's energy requirements, although the capability to send faxes from a computer will save paper, which in turn saves money and reduces environmental impacts; and
  - nameplate power ratings can provide a useful but imprecise comparison of

FACT SHEET

Natural Resources Canada
Ressources naturelles Canada
Canada

energy use (due to the lack of common measurement standards).

Monitors and Displays

- The type of display technology you choose for a computer system has an important impact on energy consumption. Although energy use will likely not be the most important consideration when selecting a monitor (display size, resolution, colour and cost are important), the recommended monitors from an energy efficiency perspective are, in order of preference:
  - LCD monochrome backlit (consumes two to five per cent of the electricity of a colour CRT);
  - LCD colour active matrix (consumes 10 to 20 per cent of the electricity of a colour CRT); and
  - monochrome CRT (consumes 50 to 65 per cent of the electricity of a colour CRT).
  - If purchasing a monitor, look for new units on the market that can power down when not being used.

Printers

- Printer technologies vary significantly in their use of light and heat and, by extension, in their use of energy. Although they offer important benefits in terms of quality and speed, laser printers use far more energy than impact printers. A regular inkjet printer is an excellent alternative, as it will produce near-laser quality but at a slower speed.
- Some laser printers are equipped with an energy-saver feature that drops their consumption in standby mode to 10 per cent or less of peak consumption. When shopping for a laser printer, make sure that it has an energy-saver feature that reduces energy consumption by at least 50 per cent in standby mode.
- Compare nameplate power ratings. Although this is not a precise method of comparison, the large differences in power requirements for certain models can provide a yardstick for measuring relative energy-efficiency. Ask the vendor for information on energy consumption during all operating modes (printing, idling and energy-saver) and take these figures into account when making your purchase decision.
- Consider printers that are capable of double-sided printing and that can use recycled paper.

Photocopiers

- Photocopiers are by far the most energy-intensive type of office machine. Heat and pressure fusing is the most common photocopying technology, especially for high quality and high volume copying, but it also consumes the most energy. Other photocopying technologies may be suitable for less demanding needs, and certainly will consume less energy (particularly inkjet systems).
- Ask if it is possible to have the default setting for duplex/simplex printing set to duplex.

- When selecting a photocopier, energy consumption during the course of a work day should be estimated and evaluated on a per copy basis. Top-end machines capable of providing fast service may, in fact, use less energy per copy than a smaller machine. Ensure that the vendor incorporates electricity consumption into the cost comparison and matches your needs with the most productive machine for the job.
- Unlike computers and printers, the power ratings on photocopiers provide an accurate means of comparing energy consumption. This is because the ratings are based on standardized test methods. When purchasing a photocopier, ask the vendor for the power ratings and compare different machines in five modes: plug-in, warm-up, printing, idling and energy-saver.
- Ensure the photocopier is capable of using recycled paper.

Facsimile Machines

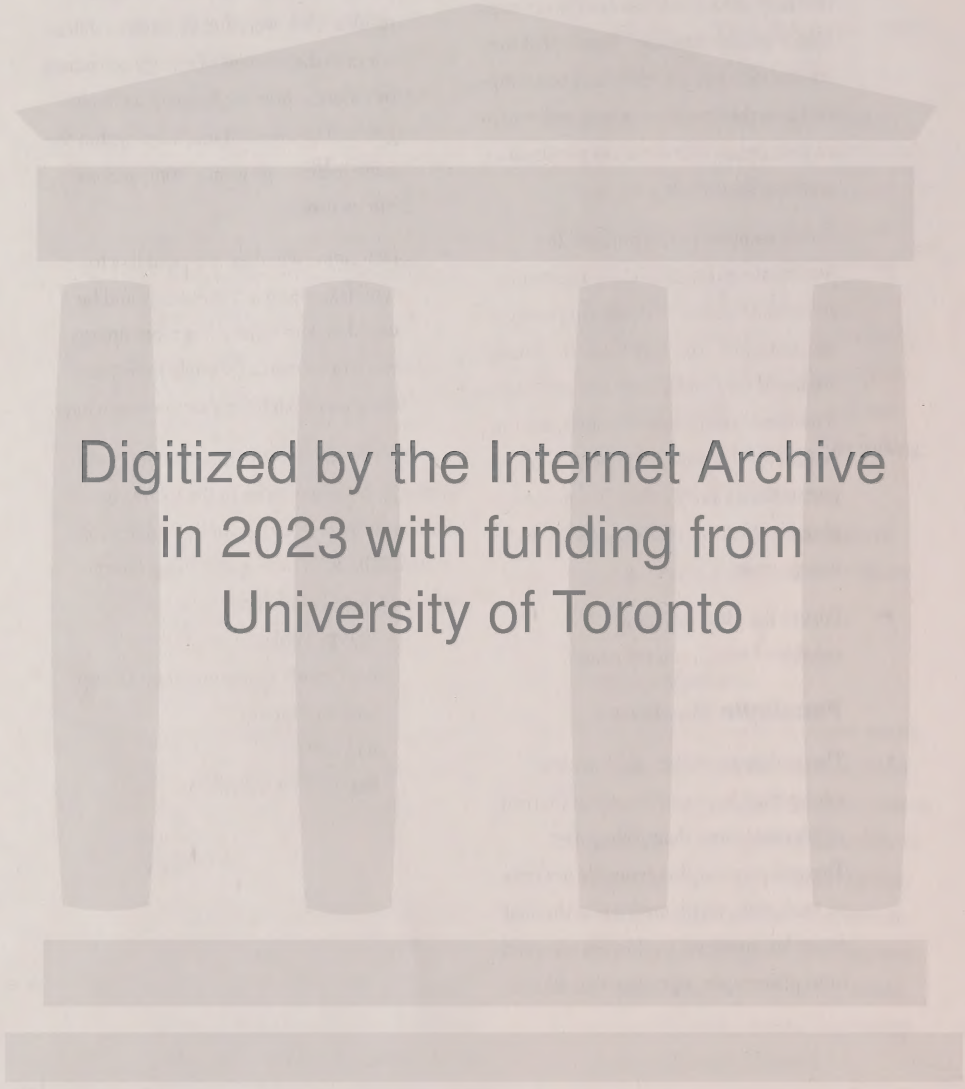
- Thermal fax machines consume less energy than laser machines, but thermal paper costs more than plain paper. Thermal paper is also generally not easy to work with, which means that thermal paper fax messages tend to get recopied onto plain paper, a practice that adds to energy and paper costs. Inkjet machines are an excellent alternative to both thermal and laser facsimiles.
- Comparisons of nameplate power ratings do not always provide truly accurate results. However, due to extreme differences in the amount of energy consumed by different printing/imaging technologies and by different machines within the same technology group, comparisons can be useful.
- Determine whether the capability to send faxes from a computer would be useful in your office. It is more energy-efficient to send a facsimile from your computer than from a facsimile machine.

For further information on energy efficiency in the office, write to the following address for your free copy of the publication entitled "Guide to Buying and Using Energy-efficient Office Equipment":

Energy Publications
c/o Canada Communication Group
Ottawa, Ontario
K1A 0S9
Fax: (819) 994-1498

Published by the authority of the Minister of Natural Resources Canada

Cat. no. M91-20/1-1994E
ISBN 0-662-22263-6
Aussi disponible en français




0 65800 06007 4